

# ELECTRICAL ENGINEERING



## Degree offered

- B.S. Electrical Engineering

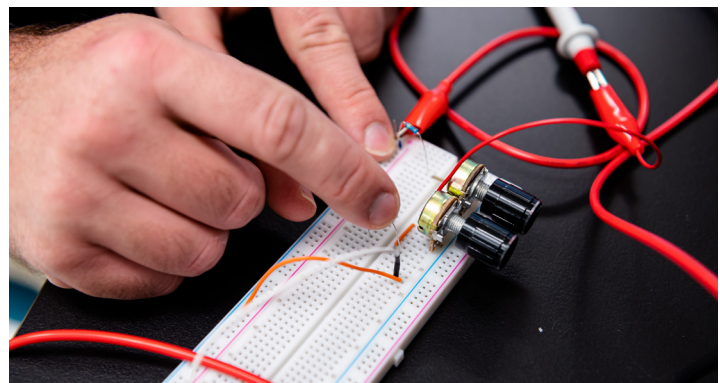
Electrical engineers design and build critical components and systems in many specialty areas, such as power, electronics, communications, controls, and computing hardware.

Whether you want to design animatronic dinosaurs, space craft, or computers, a degree in electrical engineering will give you the technical preparation you need.

**Mid-Career median pay for electrical engineering majors: \$95,230**

## Relevant curriculum

A Bachelor of Science in Electrical Engineering is a professional degree program that prepares students for careers in a variety of industries. The degree provides students with the necessary technical and managerial skills to enter the workforce in the design application, installation, manufacturing, operation and maintenance of electrical systems. Students gain hands-on experience throughout the program and learn the foundational electronics, mathematics, physics, communications control systems and computing necessary to solve real-world problems in an ethical and socially-responsible manner. Students will learn the skills necessary to build, manufacture, operate, maintain and improve complex electrical systems. Graduates will have strong communication skills and are capable of communicating with a range of audiences, as well the ability to work as a productive member of an interdisciplinary team.



## Why study at the Webb School of Engineering?

- World-class facilities and modern, state-of-the-art equipment specifically for use by undergraduate students.
- Emphasis on the student- each student has a success coach to help them succeed.
- Balance between theory and practical aspects across the entire curriculum. Students have the opportunity to put what they learn into practice through practical applications. This is supported by an excellent makerspace with the tools for students to be creative and explore.
- Broad range of technical courses prepare the students well for a career in Electrical Engineering or Computer Engineering.
- Experience working in interdisciplinary teams is provided in several projects throughout the program.
- Emphasis on educating the entire person- in addition to engineering classes, students will learn to write well, to speak well, to work in teams, and to understand engineering ethics and aspects of entrepreneurship.



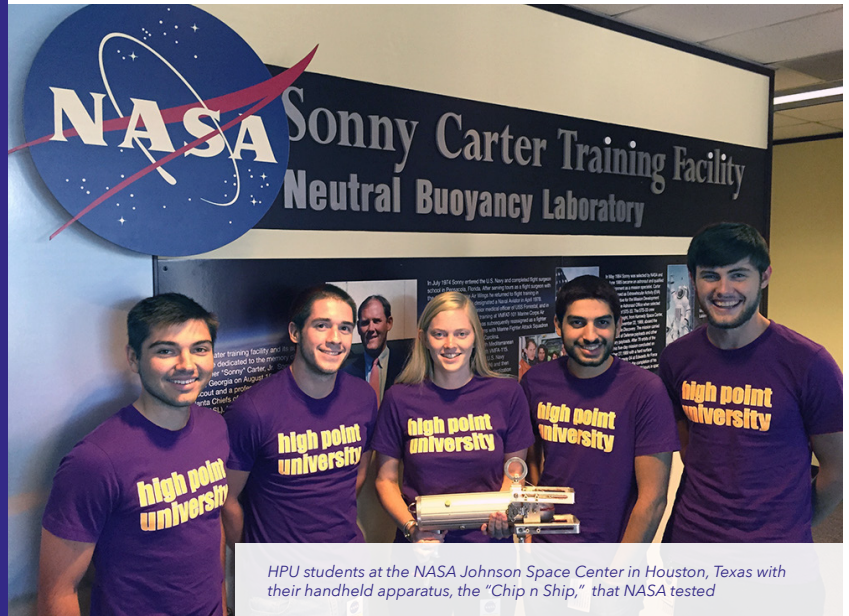
The class of 2024 celebrate together after completion of their Rube Goldberg machine assignment.

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## Student outcomes

Skills students will possess at the time of graduation include:

- An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors.
- An ability to communicate effectively with a range of audiences.
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives.
- An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.



HPU students at the NASA Johnson Space Center in Houston, Texas with their handheld apparatus, the "Chip n Ship," that NASA tested

## Unique course offerings

- Advanced Control Systems
- CAD/CAM Fundamentals
- Circuits
- Communications Systems
- Control Systems
- Digital Logic and Computer Systems
- Economics for Engineers
- Electronics
- Engineering Design
- Instrumentation
- Power Systems
- Programming in MATLAB
- Signals and Systems
- Solid State Devices

## Why study electrical engineering?

- Electrical engineers enjoy excellent job prospects because they are always needed—numerous current articles list electrical engineering as one of the most in-demand jobs for 2020 and the foreseeable future.
- Electrical engineers work in almost every industry, including power, music, electronics, medicine and entertainment, giving graduates a wide variety of career options.
- At the Webb School of Engineering, we are committed to incorporating the latest trends in technology and in engineering education into our curriculum
- At High Point, students have access to state of the art equipment from top manufacturers, both in electrical courses such as electronics, and in the Maker Space supporting our freshman and senior design courses.

For more information about the Electrical Engineering program, contact: